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ABSTRACT

This report of a study describes in detail attempts to change one kindergarten teacher's procedures for teaching reading. The aim of the study was to learn how practices observed in earlier classroom research could be improved. The more specific goal was to identify factors that facilitate or impede change. Subjects were a kindergarten teacher in Illinois and her morning and afternoon kindergarten classes. Even though the teacher was selected because of her expressed interest in replacing customary practices with something better, the reform efforts were more difficult and less successful than had been anticipated. The children's achievement, as measured by tests, was most satisfactory; the teacher's way of working, however, continued to be less than satisfactory in some important ways. Results suggested that school personnel interested in reform efforts should keep in mind that it is important to know (1) how teachers define success; (2) how teachers perceive the function of the reformer; (3) that teachers identify differences among students as a first step in effecting change; (4) that classroom management should be given early and persistent attention; and (5) that some children must be kept profitably occupied while the teacher instructs others. Findings also suggest the need to include first-grade teachers in reform efforts in order to facilitate communication and coordination among teachers who are now charged with responsibility for bringing beginning literacy into existence. (Two tables of data are included.) (RAE)

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CENTER FOR THE STUDY OF READING

Technical Report No. 465

CURRICULUM REFORM: TEACHING READING IN KINDERGARTEN

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Abstract

This report outlines in detail attempts to change one kindergarten teacher's procedures for teaching reading. Even though the teacher was selected because of her expressed interest in replacing customary practices with something better, the reform efforts were more difficult and less successful than had been anticipated. The children's achievement, as measured by tests, was most satisfactory; the teacher's way of working, however, continued to be less than satisfactory in some important ways. The nature of the impediments to change and the implications they have for others attempting to alter teachers' behavior are described.

CURRICULUM REFORM: TEACHING READING IN KINDERGARTEN

The research that accounts for the reform efforts reported here was a study of 42 kindergarten classes (Durkin, 1987a, 1987b). The purpose of that study was to learn what is done in kindergarten to prepare children for reading or to teach reading itself. The sample of findings that follows is meant to provide a setting for the study that is the subject of this report.

Classroom-Observation Research

Observations of the 42 kindergarten classes revealed with striking consistency that teaching beginning reading was equated with teaching phonics. Both the content and sequence for the instruction came directly from basal workbooks, supplemented with large numbers of ditto-sheet exercises. Whenever phonics was taught, speech sounds were linked not to decoding words but to the names of objects and pictures. Phonics was thus taught as an end in itself.

Noteworthy, too, is that new phonics content was always presented to the entire class, even when restlessness, inattention, and differences in abilities were obvious. The teachers justified whole class instruction with references to the lack of a teacher aide and the large amount of material they had to cover. On the rare occasions when teachers worked with individuals or small groups, the children were the lowest achievers. The routine explanation for this was the need to teach everyone a specified number of letter-sound correspondences.

During interviews, teachers referred to three additional sources of influence as they explained observed behaviors: (1) the obligation to mark report card items that directly reflected the content of the commercial materials being used, (2) end-of-year tests that dealt with phonics, and (3) first-grade teachers' expectations that all the sounds in the basal workbooks would be taught to allow for their immediate use of the first preprimer.

Purpose of the Present Study

The findings just reviewed account for the decision to conduct another study in order to learn whether and how practices like those observed can be improved. The more specific goal was to identify factors that facilitate or impede change in contexts similar to the kindergartens in the first study. That goal required classrooms in which the teacher (1) has both a morning and an afternoon class, (2) has no teacher aide or adult volunteer to help, (3) believes she has to teach whatever sounds are covered in the commercial materials used in kindergarten, and (4) relies on whole class instruction to teach phonics.

Improved Practices

In the foregoing discussion, "change" was used to imply replacing questionable practices with something better. What is thought to be better is outlined next.

An initial focus is meaningful pieces of text used to foster both print awareness and an interest in acquiring reading ability. Why such ability is useful is something the teacher demonstrates regularly.

Another early objective is teaching words that are of interest or are common. The latter includes color and number words as well as function words (e.g., *the*, *is*). As soon as possible, word practice concentrates on connected text--for instance, on *a big orange* rather than on *a*, *big*, and *orange*.

Printing instruction gets under way fairly quickly with no pre-established sequence. Again, usefulness is stressed. Once phonics instruction begins, attention to the sound a letter records is supplemented with practice in printing the letter.

When phonics instruction is initiated depends on the words children are learning. If some can identify *September*, *see*, *sun*, and *six*, they are considered ready to learn a common sound for *s*. In all instances, sounds are identified directly and their usefulness in figuring out unknown words emphasized. Asking questions like, "If I want to write the word 'funny', what letter should I print first?" will be common. Once some letter-sound correspondences are known, interested children will be encouraged to write whatever they wish and in whatever form they choose.

Preplanned efforts to deal with specified aspects of literacy are scheduled daily; however, "teachable moments" will be taken advantage of whenever possible. The opportunities that art and music provide to attend to text are used, too. Literacy, then, is something that pervades the program; it is not confined to one part of a schedule.

No matter what else is done, reading to children is never omitted from a day's schedule. Prereading activities designed to enhance both enjoyment and comprehension are used. Eventually, distinctions are made between books that tell stories and books that provide information. Expanding the children's knowledge of the world and, with that, their oral vocabularies, is assigned as much importance as anything else in the curriculum.

Recruiting Teachers

Findings from the classroom-observation research summarized earlier were presented at the Illinois State IRA Conference in March, 1987. The occasion was used to recruit teachers for the reform study who met the criteria listed earlier, who wanted to make changes, and who taught close enough to the University of Illinois to allow for sufficiently frequent observations. Responses were numerous but repeatedly demonstrated the difficulty of achieving correct communication. Many who responded, for example, were language arts coordinators or curriculum directors in school systems located far from campus. Others were teachers who would soon have full-day kindergartens for the first time and wanted help with the longer day. Two kindergarten teachers and their principal wrote to say they were interested in using the "phonics games" I was supposed to have discussed in my talk.

In the end, two choices for a research site were possible. The study could concentrate on three kindergarten teachers in one building, or on one teacher who was the only kindergarten teacher in her school. The decision was to work with the one teacher because of the enthusiastic interest she expressed in making changes. In addition, the rural area in which this teacher worked provided evidence that a sizable number of students were from low-income families. This feature was significant because funds for the study were intended to help "at risk" children.

Even though a case study of one teacher eliminates the possibility of arriving at generalizations, it permits a detailed examination of the change process. A case study also has the potential to suggest guidelines for a more extensive study in the future.

The Program to be Reformed

That the selected teacher used procedures like those seen earlier was documented when her classes were observed. Only what was seen during the morning will be described because afternoon activities were similar.

To begin, everything the teacher did during the late April visit involved the whole class with the exception of "center time." For the latter, children were assigned to one of the five activities listed below in ways that had all members of the class participating in all the activities by the time the week ended:

Listening:	Listened to taped stories with earphones.
Words:	Pasted cutout words under appropriate pictures (commercial material).
Art:	Made pictures with yarn.
Coloring:	Colored circles based on the color word printed inside each one (commercial material).
Alphabet:	Arranged letters in alphabetical order.

Although nothing was done with the large blocks that were in the room or with the "kitchen area" or "woodworking area," much was done with phonics. Specifically, after three minutes were spent at the start of the day with the calendar and taking attendance, the class was asked to think of a sentence for the teacher to print. One child suggested "We like to go fishing." All were then encouraged to tell the teacher how to spell each word, which resulted in a mixture of correct and incorrect letters. How the teacher decided which response to accept was not apparent, because both correct and incorrect spellings were printed. (As a way of "helping," the teacher used exaggerated, sometimes nonrecognizable, pronunciations. "Fishing," for example, was pronounced "fuh-ish-ing.") The attempts at spelling, which lasted 4 minutes, were followed by 7 minutes of auditory discrimination exercises with /v/ and /z/.

Next came "thumbs up," which also consumed 7 minutes. Now the children were asked to put up their thumbs if the two words the teacher named ended with the same sound. (Notes about this activity indicate that the children paid as much attention to the thumbs of others as they did to the words, and that the teacher continued to use artificial pronunciations.)

During the next 8 minutes, the focus returned to exercises with /v/ and /z/. For the following 6 minutes, the children worked in a basal reader workbook. Directions were to circle the v or the z that appeared under each picture after the teacher named the object. During the final 5 minutes spent on phonics, the children used a teacher-made ditto sheet. Again, the task was to circle v or z, depending on the word the teacher named.

The "math period," which lasted 18 minutes, featured a chart showing a variety of objects. (The chart duplicated the pages in a workbook published by the same company. The teacher portrayed it as a means for reducing the use of workbooks. Like the workbook, the chart was supplemented with exercise sheets.) For most of the 18 minutes, individuals went to the chart to point to "ball-shaped" or "box-shaped" objects, which were discussed. (My written reactions questioned why a penny was said to be "ball-shaped.")

One other observed activity was kept in mind for future work with the teacher: Only 7 minutes were spent on reading to the children with no attention going either to prereading preparations or to a postreading discussion.

Start of the Reform Efforts

Work with the teacher began with meetings held in her classroom on Monday and Wednesday during the week prior to the opening of school in August. In attendance, too, was a research assistant whose year-long responsibilities were to help monitor the program with observations, at which time everything

seen was described and timed; to write an impressionistic account of what was observed; and to administer and score tests.

First Meeting

The agenda that had been planned for Monday started with a review of the instructional program that was to evolve over the year. (Its essential features had been discussed twice before the teacher was selected in order to make sure she understood what was to be attempted.) The teacher's unexpected anxiety about making changes, however, put "reminders about available help" at the top of the agenda. The assistant, for example, was ready to prepare whatever materials the teacher wanted. I, in turn, would gradually go over each part of the program in any way requested. Written descriptions of possible center activities were also provided.

Next came the reminder that for a while, the only alteration in the schedule would be two twenty-minute periods in each class to allow for instruction based on needs. (This was intended to show that slow, step-by-step change was the concept.) At first, instruction would focus on colors, shapes, letters, numbers, and printing, each to be dealt with on a different day. (These were customary topics for the beginning of the year.) That content for the instructional periods could not be planned until it was learned what the children knew was stressed next. This, too, created some anxiety for a teacher who was now seen as a person accustomed to knowing far in advance exactly what she will do. (What had been done every day during the previous year was recorded in a lesson plan book, which the teacher referred to initially in the context of "That's not what I usually do" when what to do on the first day of school was discussed. As the year progressed, so too did recognition of the influence of the lesson book.)

The fact that the teacher's earlier interest in making change had been replaced by considerable reluctance resulted in stressing one more point: All recommendations were suggestions that could be accepted or rejected.

Even though rejections dominated the first meeting, two were revised by the second meeting: (1) rearranging furniture to make it possible to use the one chalkboard in the room, and (2) eliminating the woodworking area not only to allow for more space but also to reduce noise when the teacher was working at what came to be called the "teaching center." (At the first meeting, objections to removing the woodworking area were in the context of "I don't want the kindergarten to be a first grade.")

A rejection that was never revised resulted in the continued use of the math chart with the entire class. Even when an examination of the objectives stated for the materials made it clear that everything listed could be covered during the twenty-minute instructional periods, the teacher was still adamant about using the chart because it was part of the school's math program. The fact that the meanings of "top" and "bottom"--to cite one of the examples referred to when the materials were examined--could be clarified during art activities and that such clarification hardly required the ten exercise sheets that the publisher provided was not accepted. In fact, the use of art to help with "academics" was rejected from the beginning.

The last topic discussed at the initial meeting was the individual testing that would be done the first week of school for color, shape, number, and letter identification. (Tests, sheets for recording results, and detailed instructions for administering each test had been prepared.) A proposal was made to have older students give the tests in order to demonstrate that such testing is possible when no aide is available. The teacher's suggestion to have fifth graders do the testing was accepted, as was her wish to train the selected students herself. (The original plan was to have the research assistant prepare them.) Each fifth grader chosen was to become an "expert" in administering one kind of test.

Second Meeting

The second meeting began by examining the schedule for a language arts program developed earlier for four-year-olds (Durkin, 1982). Immediately, the teacher made comments like "I still want my fingerplay and poems." In the end, the accepted schedule was similar to the one used during the earlier observation in April. The major change was two successive periods of twenty-five minutes each to allow for small-group instruction at the teaching center. The teacher rejected the suggestion to have free-choice activities for the children not being instructed on the grounds that assigning activities reduced management problems.

Why the teacher posed no questions about phonics was puzzling because of all the attention that topic received when her class was observed earlier. The omission was eventually explained with the comment, "I don't start teaching phonics until January."

The last topic on the agenda had to do with allowing the children to take attendance themselves because of the instructional potential of such an activity. Emphasized, for example, is that it can help teach words like *girls* and *boys* and the plural marker -s; clarify "capital letter" and "lowercase letter" as well as when each is used; teach the names of letters; and provide meaningful counting as well as explain concepts like "more than" and "less than." (The large number of children in both classes whose names began with *J* accounted for initiating phonics instruction in November by attending to the correspondence between *j* and /j/.)

Although the second meeting generated more hope than the first, it still underscored the difficulty of changing teacher behavior. For example, both meetings verified a common conclusion of classroom observations: The curriculum for each grade is a "given," as is the time when each part is taught. This means that bringing up the subject of matching instruction with children's abilities may be threatening. Such a consequence is most likely to result when certain children's abilities call for a major departure from the "standard" curriculum.

The two meetings held before the school year began also identified the conflict that exists when a teacher has a more traditional view of a kindergarten program ("I still want my fingerplay and poems.") but also believes that certain commercial materials must be used.

Finally, the two meetings brought to mind important differences between an earlier language arts program for four-year-olds (Durkin, 1974-75) and the present attempt to reform reading instruction in kindergarten. In the first instance, neither of the two teachers had taught young children previously; as a result, they had no preconceptions of what "ought" to be done. Their innocence probably accounted for the lack of resistance to recommendations, which, in their case, were more likely to be perceived as "providing assistance" than as "evaluating." Not to be overlooked, however, is that the research budget accounted for the employment of both teachers. This assigned me authority that did not exist in the present study.

One resolution resulting from the two initial meetings was to schedule debriefing sessions toward the end of the year in order to give the teacher ample opportunity to tell her side of the story. It was thought that the interviews would reveal still more about changing teachers' behavior.

Initial Testing

The teacher's success in preparing fifth graders to administer individual tests for color, shape, number, and letter identification was documented by the research assistant, who observed all the testing during the first week of school. For each test, identification, not recognition, was the concern. Questions, therefore, included "What is the name of this color?" and excluded others like "Which of these is 'red'?"

Achieved scores are in Table 1. If they reflect what other groups of kindergartners know, the range in scores supports the contention that the common use of whole class instruction needs to be replaced with something better.

[Insert Table 1 about here.]

Use of Test Scores

On the day following the testing, the teacher and I met to organize two instructional groups in each class for each topic tested. At first, names of shapes, colors, numbers, and lowercase letters provided subject matter for some children. Words that name shapes, colors, and numbers provided subject matter for others. At the teacher's request, practice in printing first names was scheduled for Friday. At my request, Friday was also the time to make sure that the week did not end without helping the children acquire print awareness.

The teacher's proposal to extend the instructional period for the lowest achievers and to reduce it for the children with the highest test scores was not supported. The negative response was accompanied by the reminder that the main reason for revising past practices was to provide suitable instruction for all. This meant that challenging the most advanced children was a high priority.

From the beginning, I advised the teacher to have pictures and books available at the teaching center in case students lost interest in what had been planned. This suggestion was supplemented with another that was made throughout the year: Allowing children to discuss pictures is a way to expand oral vocabularies, which are as important as anything that might be taught at the center.

Means Used to Promote Change

During the year, classes were observed 28 times. Observations were supplemented with meetings to discuss what was (or was not) seen and to make recommendations for the future. At all times, meetings began with references to the good things that had been observed--and there were many, not the least of which were the teacher's management skills and the positive relationship she had with the children. Later, recommendations made during a meeting were summarized and mailed to the teacher.

Means other than meetings were used to effect change. They are identified and illustrated below. Afterwards, samples of what was seen during observations and what was discussed at meetings are reported.

Journal Articles

Prior to the opening of school, articles thought to have helpful content were sent to the teacher. One dealt with books suitable for reading to young children at the start of a new school year (Jalongo & Renck, 1987). Another was a brief, specific account of how children's interest in Halloween can be used to realize worthwhile goals, all suitable for this kindergarten (Henderson, 1985). By early October, however, it was clear that the use of holidays plus many other facets of the program were predetermined: What was done last year would be repeated. Journal articles continued to be sent intermittently even though evidence of their influence was never seen.

Handouts

From time to time, I prepared handouts to specify recommendations. At first, they covered such topics as elements of print awareness, purpose and use of "big books," sources for selecting words to teach, and ways to provide meaningful practice in using letter-sound correspondences.

Because of the importance of print awareness and of helping children understand terms used in instruction, I also provided copies of brief amounts of predictable text--for instance, "Happy Birthday," "This Little Piggy," "Pease Porridge," and "One, Two, Buckle My Shoe." The expectation that the samples would prompt the teacher to add to them never materialized even though the children enjoyed, and profited from, the text provided.

Praise

Praise was yet another means used to bring about improvement. One of the most memorable examples of deliberate praise pertained to a pig made of circles, squares, triangles, and rectangles. A sample pig was brought to me by the research assistant at the request of the teacher on September 16. Since the assistant's report of the observation stated that the children did nothing with the pig except to paste the pieces to construction paper, a letter was soon mailed to the teacher that praised the pig and also outlined in detail the potential of such "art" projects for naming colors and shapes and for counting. It was further suggested that assembling the pig allowed for printing *pig* and *Pig* in order to explain that the two are the same word; for printing, comparing, and discussing *pig* and *pigs*; and for printing *pig* and *purple* to show that both are the same initially.

Although the purpose of the letter was to encourage the use of other construction activities to achieve academic goals in interesting ways, it failed to realize that objective. The failure demonstrated that making the acquisition of literacy not only an interesting but also a pervasive possibility in a kindergarten program is not a simple accomplishment.

Responses to Observed Behaviors

For the most part, the time I spent observing was used to record what was done with whom and for how long. Periodically, however, an immediate response was made to observed behavior with the hope that it might produce change. On September 28, for example, the teacher initiated a discussion of owls with the whole class without any introduction. Excellent but highly detailed pictures were shown, each coupled with advanced descriptions that the teacher read. Given the significance of world knowledge for reading, it seemed appropriate at the time to say, "Please go a little more slowly. I don't know anything about owls, so I need more time to look at those wonderful pictures."

On another occasion, the teacher was talking about a question mark with a group at the teaching center. Because the need to consider prerequisite knowledge had been discussed, I inquired whether anyone knew what a question was. Nobody did.

On another day, all the children at the teaching center were looking intently at what the teacher was pointing to on the board. (The teacher had been encouraged to use a pointer to let the children know exactly what they were to attend to.) This time, I complimented the children by saying, "How wonderful! Everyone is looking exactly where you are asking them to look." (The comment was made because of the teacher's tendency to continue instructing even when one or more children were inattentive.)

During another observation, I commented to a group that their responses to the teacher's question included both correct and incorrect answers and suggested that individuals respond. (This was done because such mixtures can be a source of confusion.)

Whenever a comment was made during an observation, the reason for it was discussed later. Although the teacher appeared to accept the explanations and the implied need for changes, nothing observed later suggested that the discussions were influential.

Modeling

The teacher's tendency to mention rather than to provide explicit instruction prompted the use of demonstrations. For example, I modeled how a new letter-sound correspondence might be taught. In this instance, modeling was supplemented with written guidelines because observing the teacher the previous year indicated that connections between learning about letters and sounds, and reading words, were not emphasized.

Although the teacher welcomed written descriptions, they often resulted--at least on the days the teacher was observed--in too close an adherence to the recommendations. How to provide specific help without promoting an inflexible use of recommendations turned out to be an unresolved problem.

Testing

Because observations of work done at the teaching center indicated that some children were being taught what they knew whereas the pace of instruction for others was too fast, the research assistant readministered in November the tests that had been given in August. A word identification test was used, too, composed of 36 words that the teacher provided. The underlying reason for this test was to collect evidence that the practice of dealing with far too many words too quickly was nonproductive. A discussion of the low scores, which were predictable, did help reduce quick, superficial attention to words. At the same time, however, the discussion may have encouraged what can only be called "drill." All this identified still another problem in altering teacher behavior: how to eliminate quick, superficial attention to something without fostering the other extreme, namely, excessive practice.

One positive change as more and more attention went to developing reading vocabularies was a switch from practice with individual words to practice with connected text.

Classroom Observations

As explained, meetings held in conjunction with observations were the primary means used to effect change. Before a few of the recommendations made at meetings are discussed, brief comments about the observations themselves will be made.

To begin, it must be acknowledged that the only way to document with certainty and precision how an instructional program is being altered is to observe it daily. Such a requirement raises a question, therefore, about the extent to which 28 prearranged observations during the course of a year can provide representative data. That some of the observing was done by the person recommending change raises yet another question about the correspondence between what was seen and what was done at other times. It is possible, for example, that the teacher's practice of doing too many things too quickly was an attempt, conscious or otherwise, either to display change or to summarize "good things." On the other hand, the omission of procedures questioned earlier may have been the result of not wanting to display what remained unchanged. All this can be summarized by stating that prearranged observations place limitations on what can be learned in a study of the change process. It goes without saying that studies that omit observations made over a period of time stand little chance of contributing to our understanding of that process (Duffy, 1982).

Meetings

By the time the first semester ended, the initial assumption that all parts of the program could be altered was seen to be unrealistic. This meant that most recommendations during the second semester were confined to attendance-taking, use of the calendar, and instruction at the teaching center. The importance assigned to reading to children put that on the agenda for the whole of the year. Because music can contribute so much to literacy development, periodic suggestions pertaining to songs were also made during both semesters.

With the altered assumptions, the forthcoming discussion divides into first semester and second semester recommendations. The only recommendations discussed are those that (1) had to do with what the research assistant and myself both observed, and (2) were written and sent to the teacher.

Semester One

It must be noted, first of all, that some of the suggestions made most frequently failed to result in persistent change. One such recommendation had to do with the teacher's practice of working with a group or the entire class beyond the time when restlessness and inattention were apparent. Another unchanged practice was the teacher's tendency to do too much too quickly.

Other practices that persisted may not have been altered because of discrepancies in judgments. To illustrate, what was judged by both observers to be excessively difficult discussions of topics (e.g., "Owls") was judged by the teacher to be appropriate. This disparity may explain why such discussions persisted. Ditto-sheet assignments thought by the observers to be pointless and by the teacher to be "fun things to do" may have also accounted for their year-long presence. In this instance, however, it was clear that the assignments served a management function by keeping some children busy while others were at the teaching center.

It was the continuous use of unexpectedly large numbers of ditto sheets that resulted in a recommendation to the teacher on November 23 that never would have been predicted at the start of the study: Replace some ditto sheets with carefully selected pages from the two basal reader workbooks the teacher was accustomed to using. I made the suggestion not because the workbooks were so good but because a large number of the ditto-sheet exercises were so poor. (That workbook pages were already being assigned was learned in early October when the research assistant referred to them in her report. That is why I asked the teacher in a letter dated October 8 to use workbook pages during the next observation so that they could be discussed. At no time during the year, however, was the recommendation followed.)

One other topic must be considered in this brief discussion of the first part of the school year, namely, "special days." Three such days just about "took over" for three months: Halloween, Thanksgiving, and Christmas. All that was seen during this time made the influence of past practices highly visible. Although one original plan was to take advantage of children's interest in such days to promote literacy, it became clear as early as October that alterations in what was done in previous years were not likely to be made. This was disappointing because, like the pig made of construction paper referred to earlier, much that was done in connection with "special days" had potential for realizing goals related to literacy.

Semester Two

My own observations and the reports of the assistant during the first semester indicated that insufficient time was spent on reading to the children, perhaps because it was the last activity in the schedule. This conclusion, combined with the likelihood that some of the kindergartners were not read to at home, suggested having older students read each week to the kindergartners on a one-to-one basis. The proposal received the immediate approval of the kindergarten teacher, who recommended having the two fifth-grade classes do the reading. A meeting was soon held with the fifth-grade teachers (November 3), who were equally enthusiastic. A second meeting occurred on November 23, at which time a very detailed discussion covered book selections and how the reading was to be done.

Reading by the fifth graders began on schedule and was observed the second time it took place. How poorly many read was totally unexpected. A meeting was soon scheduled with the three teachers, at which time the need for the fifth graders to practice reading beforehand was underscored. It was at this meeting that the teachers explained that "this year's fifth graders are an exceptionally low class."

Two subsequent observations led to the decision to abandon the reading at the end of February. By then it was clear that more than practice was required to realize the goals established for the reading.

Whether the detailed attention that went to how to read to young children affected the kindergarten teacher's own reading cannot be ascertained. The important point is that her reading did improve noticeably during the second semester.

What was done with attendance-taking and the calendar during the second semester was uneven in quality. Sometimes the teacher did so much so quickly that it was difficult to describe and time the activities. On other occasions, one or the other or both activities were used for "drill", which meant that the number of inattentive children increased rapidly. At still other times, what was done seemed "just right."

Instruction at the teaching center was also characterized by "ups" and "downs." A problem that became increasingly apparent in the second semester was insufficient challenge for the best students, most of whom were in the morning class. On the other hand, too much was attempted with the lowest achievers, most of whom attended school in the afternoon. Even though a frequently discussed topic was the need to use restlessness as a signal to stop and to move on to something else, excessively prolonged attention to whatever was on the agenda persisted with the slower children.

The relentless attention given certain topics was sufficiently great on March 21 that it was discussed at some length. What was thought to be a decision was summarized in a letter mailed to the teacher later:

One decision is to stop teaching anything new (insofar as words and sounds are concerned) to the very slowest. What has been covered should be reviewed but not in a persistent, drill-like fashion. Instead, review will be regular but brief--that is, thorough but crisp. In between, these children should have many opportunities to talk and discuss and to expand oral vocabularies. As has been underscored many times, it is better to know a little well than to know a lot in a questionable, uncertain way.

The decision turned out to be mine, not the teacher's; for no change was made in what was done with the slowest children up until the observations ended on May 20.

Because the teacher had expressed interest at the beginning of the year in encouraging the children to write, a suggestion was made on September 21 to establish a reading-writing center that would include one or two small chalkboards, magic slates, paper, pencils, crayons, and picture books. How the suggestion was executed, however, indicated that more help was required than had been anticipated. Consequently, a decision was made to wait until later when some fundamental problems were resolved.

Concern about the lack of challenge for the best students led to a second suggestion on February 29 to have a reading-writing center. The specific suggestion was to use it as a replacement for the "block center." The teacher's first reaction was relief at getting rid of the noise that the blocks made. Soon afterwards, however, she referred to the likelihood that early childhood educators would frown on not having something like a block area in a kindergarten.

In spite of the ambivalence, the teacher seemed eager to have the reading-writing center; thus detailed plans were made. Earlier, she had been asked to read an article that described the development of a writing center in a kindergarten (Martinez & Teale, 1987). Another article suggesting that familiar books are the ones children like to look at later was also made available (Martinez & Teale, 1988).

Preparations for the new center included establishing space for writing and making available paper (lined and unlined), pencils, crayons, and four-page folded paper for authoring "books." Books that the

teacher had read were also to be placed in the new center. All in all, the teacher seemed pleased--even excited about the addition to her room.

The next observation was by the research assistant on March 17. Unexpectedly, the reading-writing center, which had been recommended on February 29, was just now being introduced. Even more surprising was that children assigned to the new center had to complete a cut-and-paste activity plus a ditto sheet before anything else could be done. As a result, only one child did anything with the new materials.

I observed next on March 21, at which time the reasons to have the reading-writing center were reviewed and the need to exclude ditto-sheet assignments was underscored. On March 29, the assistant observed. The conclusion of her report stated: "The centers were the same as on March 17. The writing center had two assignments. None of the children did anything else." Subsequently, the reading-writing center received little attention during meetings; for it now seemed clear that the teacher was either unwilling or unable to "let go" long enough to allow even the highest achievers to use in their own way all they had been learning. And, as a later section shows, they had been learning quite a bit.

Before end-of-year test scores are reported, the three interviews held with the teacher will be discussed.

Debriefing Interviews

Even though classroom observations continued until May 20, the first interview took place on April 9, a Saturday. The questions, which the teacher had ahead of time, focused on changes that were or were not made. The other two interviews, conducted in conjunction with observations, were more spontaneous; but they did include questions designed to collect further information about topics discussed earlier and to clarify certain responses. All three interviews were taped.

Generally, the purpose of the interviews was to acquire information about the teacher's perception of the reform efforts. This made my question, "How could I have been more helpful?" an important one. It also assigned importance to the teacher's response: "I would have liked to have had the whole year mapped out. For example, in September and October, we'll work on these letters and sounds."

The teacher's concern about not having "the whole year mapped out" and, in particular, about not knowing exactly when each letter-sound correspondence would be covered entered into answers to a large portion of other interview questions. This is illustrated in the brief account of interview responses that follows.

Changes in Instruction with Words

Prominent in the teacher's account of change was her attempts to develop reading vocabularies:

Before, I talked about words but just in passing. . . . Then I went to phonics. This year, after determining abilities, more focusing was done on words, on print awareness, actually on telling the children what reading is all about. That was one thing that stuck in my mind this year. Not to assume the children know what reading is I realize now you have to put more emphasis on what a word is I realize from this program that I do too much and assume the children know more than they do. I started with too many words. Before, I started with phonics, which was unfamiliar. This year, I used words they could read to teach phonics. Since before Christmas, we've been zeroing in on phonics but, at the same time, increasing the reading vocabulary. . . . Last year I concentrated more on the slow ones. I felt the need to get them to the same point as the others. . . . Sometimes I'd write down what

the better ones said and let them draw a picture to go with it, but I never gave them time to learn the words I gave lip service to words last year, but it was a hit or miss skim. I do more now with words in the small groups. . . . Last year, the children could read some individual words, but they didn't do any real reading. Now they're excited about being able to read. They surprise the heck out of me. I think sometimes they surprise the heck out of themselves. They talk to each other about how they can read. There's so much enthusiasm. . . . Now we don't practice just one word. We join them, like *on Monday*.

Difficult-to-Make Changes

Another part of the first interview is described below with a question-answer format. (*D* refers to this researcher, *T* to the teacher.)

- D: What changes were most difficult to make?
- T: Doing too much. I cover too much too quickly. It's a problem with me, and I don't know why. I had this fear that we wouldn't cover as much, and actually we're covering more.
- D: What made you think you wouldn't cover enough?
- T: I wasn't getting to the phonics, and that was my major thrust.
- D: But you said you didn't start phonics last year until January.
- T: I know, but for some reason I thought I wasn't going as quickly because I was doing like about one sound a week.
- D: Was it just the phonics that was a worry?
- T: That was the main worry.
- D: But you started to teach phonics earlier this year--in November.
- T: I know, but there's just something about covering those pages in the workbook, and that you're going to do two sounds a week. You know where you're going.
- D: Might your rushing be the result of trying to do what you did last year plus what I was suggesting?
- T: Definitely. Over the years, I've developed a clock in my head about what the children should do at certain times of the year--where they should be in phonics and number work and so forth. And you're thinking, "Boy, I'm not as far this year as I was last year." You think, "All these years I've done this and it worked, or I felt it worked. This year it was as if I reversed my process. The previous year, it was isolated phonics to the whole class with lip service to words. But this year, it was indirect phonics. I'd say, "This is *September*. Does anyone have a name that starts with *S*?" . . . Last year, it was every day, and I'd drill and drill. . . . Even though I knew that not all the children were getting phonics with whole class instruction, I thought that by exposing them, maybe they'd catch it. Now, with the small groups, they're catching it by listening to the small group. They pick up the sounds. It's like the one-room schoolhouse. Now (April) I'm through most of the consonant sounds with the best students, and I encourage them to use their phonics with new words. Now they try to read books themselves. (At this point, the teacher referred to a caption for the current bulletin-board display that she had used

"for years and years," which was read by the highest achievers "even though I hadn't taught all the words.")

Differences in Perception

One finding revealed in the interviews is especially important for "reformers" to keep in mind: The teacher perceived herself to be making far more changes than did the researcher. The discrepancy was identified a number of times during the interviews. The initial identification occurred when the teacher stated, "This year, it's been chaotic because I've made so many changes." The unexpected statement resulted in my asking the teacher to talk about the changes:

T: I was concerned about the children being at different levels.

D: Last year, there must have been differences.

T: But with whole class instruction, you're covering the same thing with everyone.

At another point in the same interview, the teacher was asked why she had been observed only once using the recommendation to print the refrains of simple songs on chart paper to help everyone learn words. The teacher's explanation was, "I didn't think of it. Don't think I won't do it next year. This year, there was just so much coming, even though it wasn't all new."

That "so much" was perceived to be "coming" may account for the number of times a recommended procedure was seen but once. Again, music can be used for illustrative purposes. A suggestion made toward the end of the year was to review songs taught earlier so that titles could gradually be listed on a chart and read by the children over a period of time. Even though the chart was begun and its use observed once, writing titles was soon abandoned.

Center Activities

One of the most frequently discussed topics during the whole of the year was the ditto-sheet exercises that constituted "centers." Although many attempts were made to distinguish between worthwhile exercises and "busy work," the latter continued to be assigned. These sheets had the children follow complex mazes, or color pictures, or cut and paste pictures. Each holiday accounted for other ditto sheets that had the children do such things as color all the candy canes or hearts or whatever else was related to the holiday. Even after everyone was doing some reading, written assignments required marking all the pictures in rows that were the same, after which more coloring was done.

The frequency with which assignments had been discussed made it natural to ask in an interview, "Do you ever feel the centers are a problem?" In response the teacher said, "I don't, but I know you do." Next came the following interchange, which would never have been predicted. It resulted from a question asked because of concern about the possibility that my encouraging the teacher to work with less than an entire class fostered the use of ditto sheets to keep some children occupied.

D: Would you say you've used more dittoes this year than last year?

T: Oh, less!

D: Really?

T: Let me tell you something. . . . Last year, after we used the phonics workbook, I had um-teen pages going over the same letter and sound.

D: More than you used *this* year?

T: Oh, yes. I haven't even touched them this year. I have twenty packages of ditto paper that I haven't touched.

D: What I've been seeing, then, is a reduction?

T: Oh, definitely. Definitely.

Repeatedly, answers to more specific questions about center assignments reinforced the teacher's reliance on ditto-sheets to control the class. Worry about behavior problems may be one reason why the many attempts made to distinguish between assignments worth doing and others had little impact.

Because the reading-writing center that was carefully described and enthusiastically encouraged never materialized, some interview questions singled out that center. The teacher's responses to all the questions can be summed up by repeating one:

I saw it as a center where a group of children went to do other work and then they could have the reading and writing as a choice. I've got to change my way of thinking about the centers. . . . I guess it's because, for so many years, I've had it that way.

Observations in this room, joined with what was seen in the earlier study of 42 kindergarten classes (Durkin, 1987a), make it clear that what are now called "centers" may be essentially different from the original referent: areas in a classroom where children select materials that have the potential to help them learn something of value.

Commercial Materials

As stated earlier, questionable ditto sheets accounted for the recommendation on November 23 to use in a selective way pages from the two basal workbooks that the teacher was accustomed to using. The fact that by May 7, a large number of pages had been assigned was unexpected because workbooks were never seen during an observation. Equally unexpected was the teacher's comments: "I would be embarrassed if someone saw all I didn't do because they already knew it. I have skipped some pages. I'll be honest. I pretty much do follow the book."

The fact that so many pages had been assigned prompted the following unplanned question in an interview:

D: This is my perception, but tell me if I'm wrong. There have been three sources of influence this year: my suggestions, your lesson book from last year, and the two basal workbooks. Is this correct?

T: Definitely. I chose workbook pages as I taught the sounds. That was a problem. I know there are pages I lost or skipped. It was such a hodgepodge. Next year, I'll follow the pages in the order in the book.

Equally discouraging were the teacher's comments at another point in the same interview: "Next year will be easier because now I know what I want to do. I won't worry so much because I know we'll get there anyway. I'm going to concentrate on three or four words for each sound."

Work with the Lowest Achievers

Based on the observations, one warranted conclusion was that the best students received insufficient challenge whereas too much was attempted with the slowest children. Only the latter were discussed during the interviews because of concern that recommendations made during the year may have

unintentionally encouraged the teacher to try to cover too much. One part of an interview that dealt with the lowest achievers is repeated below.

- D: Sometimes I felt that you had a drill-approach with the slower children. That's my impression. Would you talk about this?
- T: You get the feeling they're going to be hit with all this in first grade. I had better get this covered. And you get to the point where you feel they've at least got to hear it. You do get that feeling because you know the axe is going to fall when they get to the other grades.
- D: Did I ever say anything that encouraged you to do too much for too long with the slower children?
- T: No, I think it was in myself. I felt I've got to cover as much as I can.
- D: Even when they get restless?
- T: Yes, I'd think that if I held them for a few more minutes.
- D: Do you recall my recommending that if you saw restlessness, it was a time to shift to something else--for instance, to interesting pictures to encourage the children to talk?
- T: I had them talk about pictures in the phonics book.
- D: Did you ever say to yourself on some given day, "Now today we'll talk about pictures?"
- T: No, I never did. You just feel they've got to learn some of these sounds, so you delete other things.
- D: But they're not going to learn anything by pushing. I bet at one time in your teaching, you never did anything with phonics.

At this point in the interview, the teacher brought parents into the discussion by saying they now expect kindergarten children to learn phonics. This was surprising, given the fact that a paragraph in a letter sent home to parents by the teacher close to the beginning of the year--a letter I saw only after it went home--stated explicitly that naming and printing letters and learning about sounds "are important first steps in learning to read."

End-of-Year Testing

At the beginning of the year and on a number of subsequent occasions, the kindergarten teacher was told in person and in writing that changing instructional procedures was the goal of the reform efforts. Equal attention went to the fact that maximum achievement by the children was not the concern. Nonetheless, consequences of the instructional program were of interest. In addition, informing the two first-grade teachers about what had been accomplished was thought to be important. In fact, the information that was likely to be most relevant for their instructional programs determined what was tested.

In early May, the kindergarten teacher was asked to list the words she had attempted to teach to the highest achievers, as they would include those that the lowest achievers were learning. The list numbered 106 words. They constituted the word-identification test that the research assistant administered to each child individually during the week of May 16. The words were randomly listed in two columns on five sheets of paper. The task was to name a word when the research assistant pointed

to it. Only the very best students took the entire test at one sitting. Results of the testing are in Table 2.

[Insert Table 2 about here.]

The teacher was also asked to indicate the sounds she had taught to the best students. This resulted in a letter-sound correspondence test composed of 16 consonant sounds and the "short" sound for a. For the phonics test, the research assistant pointed to a letter and asked the child to produce its sound. Achieved scores are also in Table 2.

As mentioned earlier, all the children were tested on color, shape, number, and letter identification at the start of the year. The research assistant readministered the tests in November and again in March to any child who did not get a perfect score on the previous tests. This evaluation was done to provide information for making decisions about instructional needs.

The same criterion for this testing was used in May. Now, administering the color test was unnecessary. One child took the shape test and received a perfect score. Thirteen children took the number test and achieved scores ranging from the highest possible ($N=26$) to 9. The seven to whom the lowercase test was administered received scores ranging from 26 to 12. For the three children who had to take the capital letter test, scores were 26, 24, and 17.

Given the goal of the study, the most relevant feature of the scores reported now and earlier in Table 1 is their range. Combined with all that was seen but not tested, the differences point directly to the need for instruction that matches abilities. That such instruction is not easy to bring into existence was verified throughout the reform efforts that have been described. Admittedly, however, work by other reformers is necessary before a reliable conclusion can be reached.

On the assumption that the efforts made with one teacher might help others who are considering ways to bring about change, findings from the present study will be discussed further.

Discussion of the Reform Efforts

To start, it should be remembered that the decision to work with one teacher was affected not only by the enthusiastic interest she expressed in changing customary practices but also by the conviction that the circumscribed focus would allow for specifying the complexity of effecting change. That the prediction was accurate makes it natural to question whether lasting change can ever be realized with the means usually available: college courses, workshops, conferences, and brief inservice meetings.

What is ironic, however, is that one of the most important facts for the reform efforts described in this paper was not identified until the interviews took place: The teacher's overwhelming concern was to cover all the letter-sound correspondences dealt with in two basal readiness workbooks. Admittedly, the complexity of altering teachers' behavior makes it questionable to conclude that one factor explains the discrepancy between the change that was anticipated and actual changes. Nonetheless, enough information is available to support the belief that the kindergarten teacher's worry about covering a sufficient number of sounds accounted for a two-sided agenda: basal workbooks and recommendations from the reformer.

That this two-pronged agenda contributed to a number of problems that were never resolved appears to be another warranted conclusion. These problems include (1) the teacher's failure to persist in the use of many recommended procedures, and (2) her practice of covering too much too quickly with the lowest achievers. The same twofold agenda may explain the teacher's anxiety; it may also account for her belief that a large number of changes were being made, whereas the reformer and research assistant thought too few were made.

If, in fact, the teacher's worries about covering a pre-established number of sounds with every child was as significant as is being suggested, two questions need to be addressed. First, why was the concern not identified until the interviews were conducted? Second, what is the likelihood that expectations for beginning first graders was the sole explanation for the concern?

The tardy awareness of the importance assigned to phonics can be explained with four pieces of information:

1. From the very beginning, the teacher knew that interest in reform was prompted by observations in other kindergartens in which teaching reading was equated with teaching the sounds covered in workbooks. The teacher's eagerness to participate in the reform efforts was interpreted to mean that she, too, questioned that equation. Nothing said in the discussions held with the teacher before she was selected for the study suggested anything different.
2. Questions about phonics were seldom raised by the teacher at any of the meetings held throughout the study. Whenever such questions *were* posed, they pertained to instructional procedures or to how certain sounds should be pronounced.
3. None of the observations done either by this researcher or the assistant ever suggested that covering a given number of sounds was assigned as much importance by the teacher as was revealed in the interviews.
4. On March 21, and afterwards in a letter, the teacher was urged to "stop teaching anything new to the slowest children insofar as words and sounds are concerned." Because no objections were made to the recommendation, no reason existed to think that, even as the recommendation was being made, the teacher may have been worrying about not covering enough sounds.

Facts are unavailable to answer the second question that needs to be asked, namely, Were expectations for beginning first graders the only explanation for the kindergarten teacher's worries about phonics? In considering such a question, it is relevant to point out that one of the unanticipated features of the reform efforts was the indifference to it on the part of both first-grade teachers working in the same building. Admittedly, this is not evidence that they were also indifferent about how much children entering first grade know about phonics. That they might not be as demanding as was implied during the interviews is suggested by the fact that all the sounds in the two basal readiness workbooks are retaught in the publisher's materials for first grade. It may be even more relevant to note that the first-grade teachers used a second basal series, one well-known for the amount of space it allots to phonics in the early grades. This combination of materials makes it necessary to ask why teaching a certain number of sounds in kindergarten was assigned so much importance.

Because the importance might have had something to do with the principal's philosophy regarding workbooks, the kindergarten teacher was questioned about that during one of the interviews. The response she gave follows:

Cover as much of the book as you can, but there's no sense in covering it all if they can't do it. I've heard him say that to other teachers, too.

Considering all that has now been reported, it seems likely that for reasons that are unclear, the kindergarten teacher defined her success as a teacher in terms of how many sounds she "covered" with all the children. If that conclusion is correct, it is also accurate to conclude that changing her behavior insofar as phonics instruction is concerned would take much longer than was originally thought necessary. This is the case because people are only willing to change what they think needs to be changed.

Complicating the picture just drawn is the fact that the kindergarten teacher still felt allegiance to more traditional conceptions of what a kindergarten program ought to be. She thus faced conflicting demands--plus the reformer's recommendations.

All this may indicate that altering the behavior of kindergarten teachers like those seen in the earlier classroom-observation study (Durkin, 1987a) may be very difficult, requiring much more than one year. To make reform at least a possibility, it should be undertaken not by researchers but by school personnel who are responsible for improving instruction and who are convinced that improving the kindergarten program requires something better than whole class instruction in phonics.

If what was learned in the present research applies to more than the one teacher involved in the study, school personnel interested in reform efforts should keep in mind such points as these:

- It is important to know how teachers themselves define "success." If how they define it is at odds with the reformer's definition, effecting substantive change may be impossible.
- How teachers perceive the function of the reformer is also important. Whether they view the reformer as providing assistance or as evaluating and judging is likely to have pronounced effects on reform efforts.
- Teachers who are accustomed to relying on a pre-established curriculum are likely to be threatened by the expectation that instruction should be shaped by children's abilities. Therefore, helping teachers identify differences among students is just the first step in effecting change.
- Since managing a classroom is made more difficult when different instruction is offered to different children, how to manage merits early and persistent attention.
- How to keep some children profitably occupied while a teacher instructs others is a major problem that requires constant attention and specific solutions. It might even be said that substantial change is out of reach if this need is ignored or minimized. The contribution that well-prepared teacher aides can make to resolve this problem should not be overlooked.

Findings in the present study also suggest the need to include first-grade teachers in reform efforts in order to facilitate communication and coordination among teachers who are now charged with responsibility for bringing beginning literacy into existence. Given the unique importance of a child's contacts with initial instruction, such coordination cannot begin any too soon.

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Author Note

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Table 1
Beginning-of-Year Test Scores

Subjects	Colors (N = 9)			Shapes (N = 4)			Numbers (N = 26)			Letters: l.c. (N = 26)			Letters: cap. (N = 26)		
	M	SD	Range	M	SD	Range	M	SD	Range	M	SD	Range	M	SD	Range
Both Classes (N = 32)	8.56	1.08	4-9	2.59	1.21	0-4	11.59	7.62	0-26	11.25	8.20	0-25	15.37	10.19	0-26
A.M. (N = 16)	8.88	0.34	8-9	2.94	1.18	0-4	15.88	5.60	7-22	14.38	6.45	0-25	19.50	6.88	5-26
P.M. (N = 16)	8.25	1.44	4-9	2.25	1.18	0-4	7.31	7.03	0-26	8.13	8.75	0-22	11.25	11.44	0-26

Table 2
End-of-Year Test Scores

Subjects	Words (N = 106)			Speech Sounds (N = 17)		
	Mean	SD	Range	Mean	SD	Range
Both Classes (N = 35)	61.63	35.28	8-106	15.54	2.92	4-17
A.M. (N = 16)	74.87	28.23	36-106	16.38	1.41	12-17
P.M. (N = 19)	50.47	37.42	8-105	14.84	3.66	4-17